ϱ

WHAT IS CLAIMED IS:

- 1. An isolated and purified nucleic acid molecule encoding an infectious GBV-C.
- 2. The nucleic acid molecule of claim 1, wherein the nucleic acid molecule is RNA.
- 3. The nucleic acid molecule of claim 1, wherein the nucleic acid molecule is DNA.
- 4. The nucleic acid molecule of claim 1, wherein the molecule is about 9.4 kilobases in length.
- 5. The nucleic acid molecule of claim 1, wherein the molecule comprises SEQ ID NO:1.
- 6. The nucleic acid molecule of claim 1, further comprising a heterologous nucleic acid sequence.
- 7. The nucleic acid molecule of claim 6, wherein the heterologous nucleic acid sequence encodes a polypeptide.
- 8. The nucleic acid molecule of claim 6, wherein the polypeptide is a mammalian polypeptide.
- 9. The nucleic acid molecule of claim 1, further comprising a heterologous promoter.
- 10. The nucleic acid molecule of claim 9, wherein the heterologous promoter promotes transcription in a prokaryote.
- 11. The nucleic acid molecule of claim 10, wherein the promoter is T7, T3, or Sp6.



- 12. A method of preparing an infectious GBV-C comprising:
- a) incubating a nucleic acid molecule comprising GBV-C sequence under conditions effective to allow RNA transcription of the GBV-C sequence;
 - b) collecting the RNA transcripts; and
 - c) providing the RNA transcripts to a cell.
- 13. The method of claim 12, wherein the RNA transcripts are provided to a cell by transfecting the cell with the transcripts.
- 14. The method of claim 12, further comprising:
 - d) incubating the cell under conditions sufficient for viability;
 - e) collecting the supernatant of the cell.
- 15. The method of claim 12, wherein the nucleic acid molecule comprises RNA.
- 16. The method of claim 12, wherein the nucleic acid molecule comprises DNA.
- 17. The method of claim 16, wherein the nucleic acid molecule is an expression construct.
- 18. The method of claim 17, wherein the expression construct comprises a promoter heterologous to the GBV-C sequence.
- 19. The method of claim 12, wherein the heterologous promoter promotes transcription in a prokaryote.
- 20. The method of claim 19, wherein the promoter is T3, T7, or Sp6.

- 21. The method of claim 12, wherein the nucleic acid molecule further comprises a nucleic acid sequence that is heterologous to the GBV-C sequence and encodes a polypeptide.
- 22. The method of claim 21, wherein the polypeptide is a mammalian polypeptide.
- 23. The method of claim 12, wherein the cell is a mammalian cell.
- 24. The method of claim 23, wherein the mammalian cell is a lymphocyte cell.
- 25. The method of claim 24, wherein the lymphocyte cell is CD4+ lymphocyte cell.
- 26. The method of claim 12, wherein the RNA transcripts are about 9.4 kb in length.
- 27. The method of claim 12, wherein the nucleic acid molecule comprises SEQ ID NO:1.
- 28. An infectious GBV-C produced by a method comprising:
- a) providing a first cell with an isolated and purified nucleic acid molecule encoding an infectious GBV-C;
 - b) incubating the first cell under conditions to permit viral replication; and
 - c) collecting the supernatant of the first cell.
- 29. The infectious GBV-C of claim 28, wherein the nucleic acid molecule comprises a heterologous nucleic acid sequence.

4 : K

- 30. The infectious GBV-C of claim 29, wherein the heterologous nucleic acid sequence encodes an antisense molecule.
- 31. The infectious GBV-C of claim 29, wherein the heterologous nucleic acid sequence encodes a polypeptide.

- 32. The infectious GBV-C of claim 31, wherein the polypeptide is a mammalian polypeptide.
- 33. The infectious GBV-C of claim 31, wherein the polypeptide is a non GBV-C viral polypeptide.
- 34. The infectious GBV-C of claim 28, wherein the first cell is a mammalian cell.
- 35. The infectious GBV-C of claim 34, wherein the mammalian cell is a CD4+ lymphocyte cell.
- 36. The infectious GBV-C of elaim 27, wherein the method further comprises:
 - d) contacting a second cell with the supernatant of the first cell;
 - e) incubating the second cell under conditions to permit viral replication; and
 - f) collecting the supernatant from the second cell.
- 37. A method of inhibiting HIV disease progression in a subject infected with HIV comprising administering to the subject an effective amount of an isolated and purified nucleic acid molecule encoding an infectious GBV-C sequence.
- 38. The method of claim 37, wherein the nucleic acid molecule is RNA.
- 39. The method of claim 38, wherein the nucleic acid molecule is DNA.
- 40. The method of claim 38, wherein the nucleic acid molecule is about 9.4 kb in length.
- 41. The method of claim 37, further comprising administering to the subject AZT or at least one protease inhibitor.

- 42. A method of inhibiting HIV infection in a subject comprising administering to the subject an effective amount of an isolated and purified nucleic acid molecule encoding an infectious GBV-C.
- 43. The method of claim 42, wherein the infection of CD4+ cells by HIV is inhibited.
- 44. A method of inhibiting a cell infected with HIV comprising administering to the cell an effective amount of an isolated and purified nucleic acid molecule encoding a GBV-C polypeptide in an amount effective to inhibit HIV replication in the cell.
- 45. The method of claim 44, wherein the isolated and purified nucleic acid molecule encodes an infectious GBV-C.
- 46. The method of claim 44, wherein the cell is a CD4+ cell.
- 47. The method of claim 44, further comprising administering to the cell AZT or a protease inhibitor.
- 48. The method of claim 44, wherein the cell is in an animal.
- 49. The method of claim 48, wherein the animal is a human.
- 50. A method of treating a subject infected with HIV comprising administering to a cell of the subject an effective amount of an infectious GBV-C comprising a heterologous nucleic acid sequence.
- 51. The method of claim 50, where in the cell is a CD4+ lymphocyte.
- 52. The method of claim 51, wherein the CD4+ lymphocyte is in the subject.

- 53. The method of claim 50, wherein the heterologous nucleic acid sequence comprises a sequence encoding a protease inhibitor.
- 54. The method of claim 50, wherein the heterologous nucleic acid sequence comprises a sequence encoding an antisense molecule.
- 55. A method of treating a subject infected with HIV comprising administering to the subject an effective amount of an expression construct comprising a GBV-C sequence, wherein said subject is provided a therapeutic benefit.
- 56. The method of claim 41, further comprising administering to the subject AZT or at least one serine protease inhibitor.
- 57. A method of expressing a heterologous nucleic acid sequence comprising providing to a cell an isolated and purified nucleic acid molecule encoding an infectious GBV-C sequence and the heterologous nucleic acid sequence.
- 58. The method of claim 57, wherein the heterologous nucleic acid sequence encodes a polypeptide.
- 59. The method of claim 58, wherein the polypeptide is an antigen.
- 60. The method of claim 57, wherein the cell is a mammalian cell.
- 61. The method of-claim 60, wherein the mammalian cell is in a mammal.
- 62. A method of producing an immune response in a subject comprising administering to the subject an amount of an expression construct comprising GBV-C sequences and a heterologous nucleic acid sequence operably linked to a promoter, wherein the heterologous nucleic acid sequence encodes a polypeptide, effective to elicit an immune response against the polypeptide.